

## Creative Clusters in Visegrad Countries: Factors Conditioning Cluster Establishment and Development

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**Abstract.** Since the accession of the Visegrad Group of countries (V4) to the European Union, the importance of clusters has increased. With growing global competitiveness and EU 12 trends, a gradual awareness of creative industries is observed in V4 countries. Therefore, this article analyses creative clusters and factors conditioning their establishment and development. On the basis of a literature review and a questionnaire survey, a mapping of creative clusters was conducted. In addition, catalysts, main motives and key factors in the process of their establishment were identified, as were the activities and factors hampering their development. The scheme of cluster development is presented as the outcome of the qualitative analysis, along with a comparison to findings of other studies. Research findings show that trust building and administrative obstacles are among the main barriers, especially for design clusters and cultural clusters.

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## 1. Introduction

Most of the theoretical approaches towards creativity, innovation, and creative industries in general recognise a relationship between place and creativity (Oksanen, Stahle, 2013). Creativity is a resource for innovation associated with both a territory and a competitive advantage (Lazzaretti, Boix, Capone, 2008). Access to information and sharing ideas within the creative class are vital factors for sustainability and empowering social networking (Champion, 2010). Innovative small and medium enterprises (SMEs) benefit from being embedded in regionally-based networks of similar companies where face-to-face communication is present (Desrochers, Leppälä, 2011). Thus, they often operate in clusters. Porter (1998) defines a cluster as a geographically proximate group of companies in a particular field, with suppliers, service providers, and related institutions, which are linked by externalities of various types, and which simultaneously compete and cooperate. Some regional spatial strategies have identified and localised creative clusters, creative quarters, and creative hubs (Foord, 2008; Selada et al., 2011).

Creative industries tend to cluster geographically so as to benefit from agglomeration and co-location, which increase opportunities for sharing ideas and bonding (Turok, 2004; Chapain, De Propriis, 2009). Informal social bonds in turn enable the emergence of new creative milieus that have become a discursive tool of urban regeneration (Semm, 2011). However, creative industries do not cluster solely because of localisation and urbanisation economies. A great portion of creative industries are knowledge-intensive business services which are based on the presence of collective learning, access to a knowledge-base, and global networks (Lazzaretti et al., 2008; Chapain, Comunian, 2010). Furthermore, certain soft characteristics such as quality of life, social diversity, and cultural infrastructure are important (Kong, 2012; Boix, Hervás-Oliver, Miguel-Molina, 2014).

The concept of clustering provided the basis for further development of creative industries, which successfully emerged in the post-industrial era and eventually progressed through developed countries worldwide. They were identified and defined by the UK Department for Culture, Media and Sport

(1998) as industries which have their origin in individual creativity, skills and talent, and which have a potential for wealth and job creation through the generation and exploitation of intellectual property. Creative industries emerged from the relationship between media and cultural sectors (Jeffcutt, 2000; Boggs, 2009). Therefore, they are commonly associated with culture and cultural industries, even though they were originally differentiated (Lazzaretti et al., 2008; Gwee, 2009; Murphy, 2012). The nature of the creative industries can be perceived as an invasion of arts and culture not only in business, but also to a greater extent in management (Wolfe, Bramwell, 2008; Harney, 2010). Creative industries characterise by the ability to create new products, a creative atmosphere encouraging flexible management systems, and more rapid response to external changes (Caves, 2003; Jones et al., 2004; Meitzner, Kamprath, 2013; White et al., 2014). These elements eventually lead to the further development of the creative class, which consists of talent, tolerance, and technology (Florida, 2002). Development of the creative class depends on the level of social and cultural infrastructure which provides an appropriate environment for attracting and retaining creative people (Chapain, De Propriis, 2009; UNCTAD, 2010; INTELI, 2011). Creativity, on the other hand, influences the development of cities and territorial competitiveness (Cunha, Selada, 2009; Cohendet et al., 2010). The territorial aspect of the creative class is reflected in the agglomeration effects of companies, where new technologies and creative milieu are identified as pull factors. A concentrated creative class may further develop under a creative cluster (organisation). Clusters in creative industries are specific in their type as the aforementioned creativity and talent plays a key role in their development.

Clusters aim towards a successful development, thus towards the excellence. The excellence can be defined by cluster's growth, high productivity, and innovativeness of its firms; which would not be possible without the leadership of a strong and professional cluster organisation. Cluster excellence translates into better prosperity and higher investments in the region(s) in which the cluster operates, and higher competitiveness of cluster member companies (Meier zu Köcker, Rosted, 2010). Cluster excellence can be evaluated within a framework for the assessment of a cluster organisation's level

of excellence proposed under the European Cluster Excellence Initiative (ECEI) by the European Secretariat for Cluster Analysis (ESCA) (VDI/VDE Innovation + Technik, 2012). Excellence is evaluated on the basis of 31 indicators concerning different aspects of a cluster's structure, management, financing, activity, strategy and recognition. An excellent cluster is awarded a "gold label," which demonstrates highly sophisticated cluster management and high performance. In the context of Visegrad Group (Czech Republic, Hungary, Poland, and Slovakia) and the specificity of creative and cultural industries, the achievement of a "bronze label" by a cluster organisation is understood as equal to reaching a breakthrough – as a first step towards excellence.

As the main goal of each cluster is to achieve a certain level of excellence, this paper focuses on identifying the mechanisms for the establishment and development of creative clusters with special attention to Visegrad countries. These share the experience of the transition from centrally-planned to market oriented economy, and the perception of culture as superstructure without any contribution to production respecting cultural Marxism. Moreover, the paper concentrates on clusters understood as legal entities, i.e., cluster organisations having their own management, budget, and activities, and differing from the prevailing approach to research on creative clusters being solely the result of their spatial concentration and with relation to the concepts of agglomeration and urbanisation economies. With respect to these specific features, the paper focuses on key actors and prevailing motives for creative clusters establishment as well as factors conditioning further development of creative clusters and their activities, from the perspective of reaching cluster excellence. The findings are presented as a conceptual model of cluster development in V4 countries, which is then used as a foundation for a comparison with recommendations for creative clusters development presented by Kind and Meier zu Köcker (2012) and Szultka (2012). In regard to these policy documents, this paper expands the contemporary knowledge thanks to both including the Hungarian creative clusters in the sample as well as providing the classification of factors and motives for creative clusters establishment and their further development comprising identification of barriers for reaching their excellence in V4 countries.

## 2. Creative clusters in Visegrad countries

As Visegrad countries share similar historical and socio-economic conditions shaped by the post-communistic era, the Visegrad partnership was founded in 1991. Despite the popularity of creative industries among governments across Western Europe, the V4 are at an initial phase of support for creative industries, prompted by the depletion of the previous "low-road" development strategies (Pike, Rodríguez-Pose, Tomaney, 2008; Cikánek, 2010). An important document concerning creative clusters is "Klastry w sektorach kreatywnych" ("Clusters in creative sectors"; Szultka, 2012), which is devoted to creative clusters in Poland. Otherwise, the research on creative industries is limited to analyses of the creative capital, indexes, and potential of each V4 country. Among key contributors addressing geographical influence on the performance of the creative sectors are Kovács, Egedy, and Szabó (2011); Kloudová, and Stehlíková (2012); Slach et al. (2013); and Środa-Murawska and Szymańska (2013). Furthermore, Bednář, Danko, and Grebeníček (2013) evaluated the creative economy of Slovak regions and mapped creative natural (Porterian) clusters. The awareness of creative industries was enhanced by the Creative Incubators project (2012 – 2013), which focused on creative industries, creative incubators, creative clusters, and economic aspects of culture in the V4 territory (Jaurová, 2013a). However, minimal insight has yet been given into the management and development of creative clusters in the areas of innovation, education, and cooperation.

Cluster-based policies were adopted by Poland, the Czech Republic, and Hungary in the early years of this century, and in Slovakia after 2005. Clusters started to be seen as a tool for strengthening the competitiveness of their actors, regions in which they operate, and ultimately the national economies. With the development of cluster-based policies, different initiatives and programmes of support, including financial, were implemented. In order to apply for financial support, however, clusters had to fulfil certain criteria. These vary from country to country. Nevertheless, some similarities were observed, e.g., in the requirement of a critical mass (core) of the cluster, its structure (the importance of predominance of SMEs, and the Triple Helix ap-

proach), the existence of a cooperative agreement and/or the legal entity of a cluster organisation, etc. Also, certain limitations in public support have been perceived, e.g., those connected with the interdisciplinary focus of the support programmes, or the discrimination against some sectors of cluster activity, i.e., sectors other than manufacturing and technology in the Czech Republic, tourism and service sectors in Hungary (Bialic-Davendra et al., 2013; Bialic-Davendra et al., 2014). Furthermore, the cluster-based policy in Slovakia is an exception, as the first actions towards cluster support appeared only within the programming period 2007–2013, and no direct financial support has yet been offered to clusters. Although, an enthusiasm for supporting cluster development has been expressed, no concrete steps have been taken (Bialic-Davendra et al., 2014).

### 3. Research methods

#### – Qualitative study on creative clusters in Visegrad countries

The first step in the qualitative research was to identify active creative and cultural clusters from all existing clusters mapped in the V4. These were identified in accordance with the conceptual definition of creative and cultural industries by Power (2011: 37), which was based on NACE (Nomenclature of Economic Activities) Revision 2 codes, and further applied in research done by Kind and Meier zu Köcker (2012) and Szultka (2012). According to those; creative and cultural industries include: music, print media – books and press, object d'art – glass, ceramics, cutlery, crafts, jewellery, film, broadcast media, the “finer” arts – literary, visual and performance arts, architecture, design, advertising, games software, new media, libraries, museums, heritage, and photography. The research was conducted in 2013. The sample was limited to Poland and Hungary, as no clusters in creative industries were identified in the Czech Republic (with the exception of Zlin Creative Cluster undergoing the facilitation process as of September 2015) and Slovakia. It needs to be highlighted that despite the presence of national development programmes oriented on the establishment of clusters in these countries, development of creative clusters was lim-

ited. This was due to sector discrimination in cluster support in the Czech Republic (including clusters based on creative industries) and a delayed development of cluster support in general in Slovakia. Altogether, 25 creative clusters were identified, i.e., 18 active clusters in Poland and 7 (6 active) clusters in Hungary. Of these, 6 Polish and 2 Hungarian clusters participated in our study.

During the second step, semi-structured interviews with cluster managers and coordinators were conducted (Eikhof, Haunschild, 2006). The interviews included open questions that allowed the adjustment of a particular question to the interviewee (Caniëls, de Stobbeleir, de Clippeleer, 2014). Furthermore, the survey was based on the critical incident technique (CIT), where respondents who experienced the incidents could share information in their own words (Chell, 1998; Coetzer, Redmond, 2011). This interview technique was used to encourage respondents to identify specifics in cluster development process, rather than answering direct questions. Furthermore, CIT emphasise the identification of the cause and actions taken during the incident (Chell, 1998).

The primary objectives of the interviews were to identify the key initiators in the process of cluster formation, along with a comparison of experience (with government authorities, socio-economic) in Poland and Hungary. Moreover, the interviews focused on aspects of cooperation with the industrial and educational sectors. A secondary objective was to identify strategies in management and development that strengthen a cluster's performance and regional competitiveness. Respondents were asked to describe their experience with cluster formation, development and common activities. All 8 interviews were recorded and later transcribed. The grounded theory (GT) was used for comprehensive data coding (Glaser, Strauss, 1967). The GT analysis was selected to generate theory on cluster development from the experience of relevant individuals (Mace, Ward, 2002), and included open, selective and theoretical coding with constant comparison to reflect on the data (Jones, Alony, 2011). Three stages of coding were used to deconstruct and conceptualise the data, as a form of content analysis (Allan, 2003). Semantic units (sections of the transcribed texts) were identified as bearers of information. Assigning of codes (the key words) to the seman-



tic units followed as the next step. The given codes marked the core of the information (the topic) and were used as a categorisation tool of the semantic units. A list of codes was created which was later systematically categorised, i.e., codes were grouped according to their similarity into more general subcategories and the subcategories were grouped into general categories. To ensure data validity several team discussions proceeded. Occasionally, continuous comparisons led to the refinement of an existing code or a combination of codes with similar meanings. The aim was to reduce large amounts of data and achieve smaller number of units for further modelling of particular areas (Rowlands, 2005). Finally, the GT depict the basic social process that leads to explanatory theory of cluster development in Poland and Hungary.

## 4. Results

Following the methodology, the results section was subdivided into two parts. The first part presents findings concerning spatial distribution of the creative clusters, time of their establishment and other structural characteristics such as number of members, type of activity, i.e., affiliation to the predominant creative sector, and the level of their activity. The second part describes an identification and analysis of factors conditioning the establishment and development of creative clusters in the research sample and presents a conceptual model.

### 4.1. Structural characteristics of creative clusters in the research sample

This part presents structural characteristics of creative clusters from Poland and Hungary. Table 1 shows a division of clusters that participated or did not participate in the conducted research. Clusters were listed according to the following characteristics: type of city in which they have their headquarters (metropolitan or non-metropolitan, which belong to World cities according to Derudder, Taylor, 2012), year of establishment, number of cluster members, creative sector, and level of cluster activity. The highest number (9, i.e., 36%) of clusters was

found in the area of multimedia, followed by clusters in the printing and advertising sectors (24%), culture/arts sector (20%), and design (20%).

The first cluster was established in 2001. Since 2005, the development of creative clusters has been observed. Accession to the European Union and the development of national strategies oriented on networking and cooperation among SMEs contributed to the popularisation of cluster development. The largest number of new creative clusters was established in 2011 in Poland. On the contrary, a decreasing trend is noted in Hungary. From the spatial distribution point of view, creative clusters dominate in the Hungarian metropolitan city of Budapest (4 out of 7 clusters). This is due to its population as well as its characteristic as the headquarters of the national economy. In Poland, on the contrary, these types of clusters are more spatially dispersed and are located in two west-east corridors, i.e., Wrocław - Cracow and Poznań - Łódź - Warsaw - Lublin, concentrated mostly in populated areas. Cracow has the highest number of creative clusters in Poland (4). Polish and Hungarian cultural clusters mainly locate in non-metropolitan cities, where their development is supported by public and non-profit organisations. On the other hand, printing and advertising clusters are based in metropolitan cities, what corresponds with the findings of Stams et al. (2008).

According to Stam et al. (2008), cluster members can be further characterised by area of specificity. The culture/arts sector can be characterised by a non-commercial attitude and a high dependence on public subsidies, in part because of the government being the main recipient of their activities. This sector tends to offer unique products. These characteristics, in turn, lead to a time lag in the development of cooperative activities and to a decreased awareness of the importance of the cluster concept. The areas of multimedia, and printing and advertising are characterised by a market focus, partial financial support from the government, the presence of the majority of private consumers and large scale users. Furthermore, the necessity of cooperation and standardised products are characteristic. In the design sector, creative cluster members focus on large businesses, low subsidies, small-scale and tailor-made production, where employees usually have flexible assignments.

**Table 1.** Creative clusters in Hungary and Poland (status in 2013)

Cluster name	Country	City	Type of city <sup>b</sup>	Year of establishment	Number of members	Creative sector	Level of cluster activity
<b>Clusters which participated in the study</b>							
Hungarian Mobility and Multimedia Cluster <sup>*a</sup>	Hungary	Budapest	M	2007	56	Multimedia	Bronze label
Wamp	Hungary	Budapest	M	2006	23	Design	Moderate
Creative Communication Cluster <sup>*</sup>	Poland	Warsaw	M	2011	25	Multimedia	Bronze label
Creative Cluster Locomotiva	Poland	Bielsko-Biala	NM	2011	50	Culture	Low
INRET Cluster	Poland	Cracow	M	2009	23	Culture	Low
PIOT Cluster	Poland	Lodz	NM	2010	43	Design	Low
Leszno Printing and Advertising Cluster <sup>*</sup>	Poland	Leszno	NM	2008	24	Printing and advertising	Bronze label
Silesian Design Cluster	Poland	Cieszyn	NM	2005	31	Design	Moderate
<b>Clusters which did not participate in the study</b>							
3D Creative Innovation Cluster	Hungary	Szeged	NM	2011	n/a	Multimedia	Failure
Av cluster	Hungary	Pecs	NM	2010	17	Multimedia	Low
Central Hungarian Printing Cluster	Hungary	Budapest	M	2001?	n/a	Printing and advertising	Low
Culture Creative Industry Cluster	Hungary	Pecs	NM	2007	32	Culture	Moderate
Creative Media Innovation Cluster	Hungary	Budapest	M	2008	30	Multimedia	Low
Advertising Cooperative	Poland	Poznan	M	2011	15	Printing and advertising	Low
BizArt	Poland	Elblag	NM	2011	16	Culture	Low
Creativro	Poland	Wroclaw	M	2011	21	Multimedia	Low
European Game Centre Cluster	Poland	Cracow	M	2008	20	Multimedia	Moderate
Furniture Design Cluster of Wielkopolska	Poland	Poznan	M	2011	16	Design	Moderate
LabDesign	Poland	Kielce	NM	2013	12	Design	Low
Lublin Cultural Cluster	Poland	Lublin	NM	2007	n/a	Culture	Low
Malopolska Graphic Cluster	Poland	Cracow	M	2012	20	Printing and advertising	Moderate
Mazovian Printing and Advertising Cluster	Poland	Warsaw	M	2007	19	Printing and advertising	Bronze label
Media Cluster	Poland	Lodz	NM	2007	59	Multimedia	Low
MultiCluster	Poland	Nowy Sacz	NM	2006	54	Multimedia	Bronze label
Printing Cluster ITTP	Poland	Cracow	M	2008	18	Printing and advertising	Low

Note: <sup>a</sup>\*Cluster appointed a “bronze label” under ECEI, assessed by ESCA. <sup>b</sup> M - Metropolitan, NM - Non-metropolitan.

Source: Own research

The number of cluster members is reflected by the ordinary structure of creative clusters, which includes a high share of micro and small companies as documented by Meier zu Köcker (2012). The majority of cluster members in the sample is represented by SMEs and self-employed individuals. In addition, clusters awarded the “bronze label” (demonstrating a high level of cluster activity) according to the ESCA, were identified. These were the “oldest” clusters in the sample and represented by sectors of multimedia, and printing and advertising. Further clusters were classified into those with moderate and low levels of activity, and according to the following areas: business cooperation, human resources, networking, R&D, and support activities. Clusters with a moderate level of activity are those which have implemented activities in a minimum of three of the aforementioned areas during the last two years. The majority of them have operated longer and are affiliated with a design sector. All cultural clusters demonstrate a low level of activity.

#### **4.2. Key aspects and factors influencing creative clusters development in the research sample**

The main findings regarding the background for and key characteristics of creative cluster development in the V4 are further depicted. Cluster development may evolve into two main directions, starting from establishment through further development thanks to joint cluster activities, and depending on their successful operation or failure, moving towards cluster excellence or decline. This simplified scheme of cluster development is further depicted with detailed characteristics conditioning cluster establishment and its further development in Fig. 1. The establishment of a creative cluster is influenced by three main characteristics: key initiators, main motives and key factors both internal and external.

Half of the clusters in the sample had a non-profit organisation as the main initiator; two of them were initiated by an individual. Among other types were an association and companies (one each). In most cases the establishment resulted from a bottom-up initiative. Only one cluster from the sample was initiated top-down, with an international corporation forming its core.

In addition, respondents were asked whether the needs of potential cluster members were identified. Only, three clusters in the sample conducted an analysis of needs prior to the cluster establishment. Various forms were used: a questionnaire survey among companies, an analysis by an external organisation, and visits to and interviews with other creative clusters and local cultural and creative entities. Also, events such as workshops were organised, where potential members could express their needs. Due to the specificity of creative sectors, however, the best form of analysis was internal rather than external. Also, as some of the clusters already had comprehensive knowledge about their sector and its actors, they did not consider such analysis as needed.

The majority of creative clusters distinguished networking as the main motive for a cluster establishment. Here, among the most common motives were knowledge-sharing, arranging events, and the proximity of cluster actors. Joint R&D was considered as the second most important motive for cluster establishment. It is an innovative approach of creative clusters to carry out joint research projects with academia and NGOs. Third in importance were financing (subsidies) and lobbying. In terms of financing, it was mainly the opportunity to receive support for projects from the European Union Structural Funds. Lobbying, in turn, puts pressure on suppliers and leads to the lower cost of commodities. Two respondents identified competitive advantage as a motive for cluster establishment. This brings the advantage of entering new markets and promoting a cluster's brand name.

Furthermore, factors influencing creative cluster development were distinguished and divided into two groups: internal and external. Internal factors can be further categorised into subjective and objective. Subjective internal factors include: trust among members, openness to new ideas, motives of members, attitudes of members/entrepreneurs, and cluster brand name. Objective internal factors include: the number and quality of members, the quality of project managers, and a money factor. Internal factors, especially subjective ones, constitute the core of a cluster's development. The most important is trust building among cluster members. This, in turn, is associated with openness and willingness to cooperate. Even though the cluster ac-

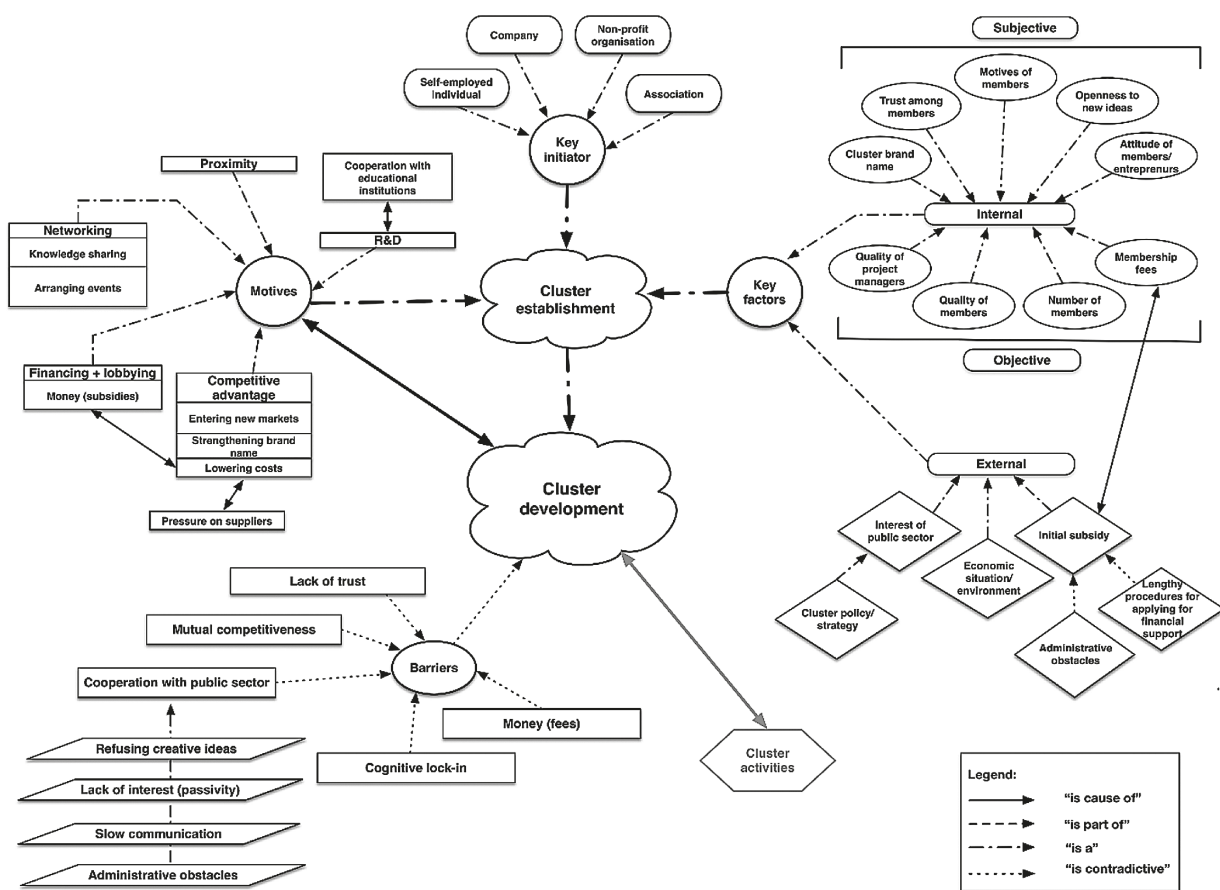


Fig. 1. Key characteristics of cluster development

Source: Own development

tors share the same objectives and values, often the mistrust of cluster members who perceive one another as competitors appears as a common barrier. Among objective internal factors, membership fees often appear as problematic in connection with the initial development phase of a cluster when cluster actors are not yet able to see future benefits of co-operation.

The second group includes external factors related to the public sector's interests (cluster policies and strategies), the economic situation/environment, and initial subsidies. Obtaining an initial subsidy appears to play a crucial role in the initial phase of cluster development. In the sample, an initial subsidy was requested by 4 clusters. However, only 2 were actually successful in receiving subsidies. The main problems were lengthy procedures for applying for financial support and other administrative obstacles.

Clusters which did not apply for or receive subsidies were forced to rely on membership fees for financing their activity, what eventually resulted in the implementation of smaller projects. Common cluster activities which are crucial for cluster development are depicted in Fig.2. A large portion of clusters highlighted the importance of external business cooperation, e.g., cooperation outside the cluster in the form of joint projects. Two respondents identified the importance of business cooperation in R&D and connected it with opportunities for further development through mutual research oriented towards innovation.

In addition, the respondents were asked to describe current and potential barriers to further cluster development (see Fig.1). Creative clusters often face similar difficulties. The most common is specificity of business orientation resulting in an inability to succeed on the market. The role of clusters



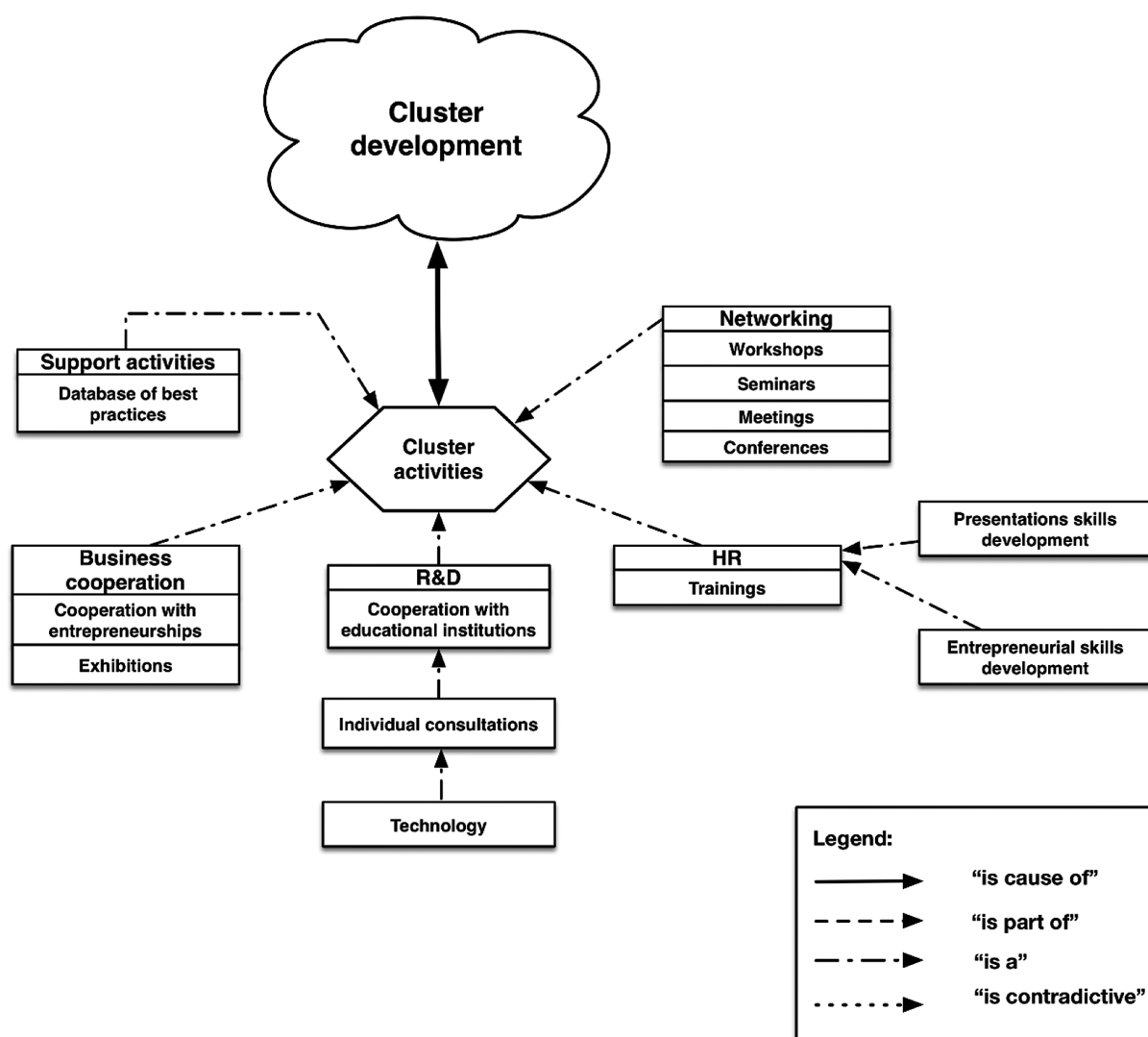


Fig. 2. Common cluster activities

Source: Own development

is to overcome limitations in market perception by artists and designers through the organisation of regular trainings, seminars, and workshops. The most common barriers are connected with lack of trust, membership fees, cognitive lock-in, mutual competitiveness, and problems in cooperation with the public sector. The majority of respondents (5) recognised an inability to pay membership fees as the main internal barrier. Furthermore, clusters also struggle with trust issues among their members. This is connected with fear of sharing internal information and praxis, and their misuse by other parties. Another problem is a "cognitive lock-in" effect, which is a threat to further cluster develop-

ment. The most common external barrier is a lack of public interest in creative clusters. Lack or limited interest (passivity), the sceptical attitude of the public sector towards creative ideas, slow communication and administrative obstacles all can hamper creative cluster development. Culture and creative industries are still not recognised as catalysts for local development and urban regeneration. Even though there are support programmes such as Creative Europe 2014, governments and municipalities do not provide adequate support for these sectors. Thereby, the respondents pointed out the need for policies specially oriented towards creative cluster support.

## 5. Discussion

A cluster boom on a national level, including clusters in cultural and creative sectors, was observed at the turn of 2006/2007 both in Hungary and Poland. This was connected with the accession to the EU (2004) and with the focus of national operational programmes on competitiveness through cooperation. A further wave of creative cluster development in Poland was connected with an increase of economic activity in 2011 after the global economic crisis of 2008. In addition, it was also related to the increasing unemployment and the implementation of strict financial regulations that enabled the application of Keynesian policy, i.e., a decrease of taxes, an increase of public expenses, and the depreciation of the Polish currency (Faris, 2013). On the contrary, Slovakia has lacked the development of creative clusters. This was due to the delayed and centrally-planned industrialisation and urbanisation under Socialism (1948-89), and the orientation of the current government towards low-road development (Jaurová et al., 2013b), predominantly automotive and IT. Also, the prioritisation and emphasis put on supporting cluster development in manufacturing and technology sectors impeded development of creative clusters in the Czech Republic.

Contrary to the national level, regions face difficulties in different areas of cluster development. This is connected with a misunderstanding of the cluster concept by key authorities, their unwillingness to cooperate, and a lack of financial support (Marková, 2014). Furthermore, as Kind and Meier zu Köcker (2012) aptly note, one of the key hampering factors of creative cluster establishment is a low degree of cluster lobbying. When a cluster is represented by an external facilitator who is not from a creative sector, the cluster may face other problems, i.e., with identity and business model, e.g., the top-down Audio-visual cluster initiative.

On the basis of Polish and Hungarian clusters in the sample, it can be observed that the first creative clusters emerged in the area of printing and advertising, and design, then in multimedia, followed by clusters in the cultural sectors. In the last four years, the development of mostly multimedia clusters has taken place. As we further aimed on comparing the afore presented findings on fac-

tors conditioning creative clusters development with other scholars, we found that it is a rather difficult, if not irrelevant, task due to various conceptual approaches towards the cluster definition. As this paper focuses on a cluster defined as a legal entity, it has to be noted that only contemporary managerial reports and policy recommendations, namely at the EU and national level, can be considered as a base for a valuable comparison. Thus, this paper can discuss the results of the applied research solely. Hence, its primary contribution to the knowledge on factors conditioning creative cluster development is systematisation and classification of those factors and their comparison with two relevant policy documents, i.e., Kind and Meier zu Köcker (2012) and Szultka (2012). With respect to the findings presented in Figure 1 and 2, the comparison was divided into two sections, i.e., motives for cluster establishment and cluster activities.

Several motives for creative cluster establishment in the V4 countries were confirmed with the key issues identified by Kind and Meier zu Köcker (2012) such as lack of shared identity and low degree of lobbying and networking for knowledge sharing, as well as new market opportunities in accordance with Szultka (2012). The use of subsidies also appeared as a motive. Even though, Szultka's (2012) recommendations provide a wide range of possibilities when applying for subsidies including traditional (such as for example a loan) and new forms of financing (e.g. seed capital or crowdfunding), our study shows that cluster managers do not consider them, with the exception of public national and the EU programmes, when applying for financial support. Hence, the discrepancy between the statements of the cluster managers and policy recommendations in terms of finding financing for cluster activities can be observed. In contrast, it is a common practice of micro creative enterprises to receive funding through new forms of financing such as seed capital, venture capital, business angels and crowdfunding. However, the V4 creative clusters rather initiate seminars and workshops to stimulate their members to apply for these forms of financing than to use them for common cluster activities.

Regarding the V4 creative cluster activities, the findings show similarities in collecting the best practices from both their members and non-mem-

ber SMEs during workshops and seminars. These methods of mutual communication between the cluster members were also indicated as a predominant mode of networking and one of the key activities for creative cluster development confirming the same result as in Kind and Meier zu Köcker (2012) and Szultka (2012). Furthermore, the similarity was also observed in a development of human resources implementing training for business competencies and skills development. Although the pressure on suppliers as a way to lowering cost was identified as a motive for the cluster establishment, only half of clusters in the sample provide the service of exploiting collective purchasing for their cluster members, as recommended in Szultka (2012). Also, internationalisation activities were highlighted in both studies; however, they cannot be confirmed by the results of the conducted survey as they are limited to participation in exhibitions and trade fairs. These activities are perceived as a task or a vision for the future. However, it has to be noted that only few clusters in the sample were established more than five years before the conducted survey. Finally, both Kind and Meier zu Köcker (2012) and Szultka (2012) emphasise R&D activities. The results of the conducted survey shows that the V4 creative clusters focus within their R&D activities mainly on cooperation with educational institutions, primarily universities, and predominantly orient their activities on training or education. The exception constitutes Leszno Printing and Advertising Cluster, which collaborated on innovation in printing technology.

## 6. Conclusion

The conducted research showed that the most successful creative clusters are those in multimedia, and the printing and advertising sectors, where 5 out of 15 clusters were awarded the “bronze label” by ESCA. At the same time, they belong to the oldest creative clusters in the V4, i.e., they were established during 2006–2008, with the exception of one cluster established in 2011. Even though the bronze label is commonly accessible (Kind, Meier zu Köcker, 2012), it is a positive “first step” towards creative cluster excellence. Firstly, this is due to the speci-

ficity of the creative and cultural sectors, which are characterised by a high share of small businesses and freelancers, and high levels of interdisciplinarity and overall complexity. Secondly, this is connected to the short history of cluster development in the V4, linked to EU accession and subsequent financial support.

The research findings are consistent with those of Kind and Meier zu Köcker (2012), who indicate that clusters in creative sectors are not that different than clusters in other industry sectors. They are driven by similar motives and face similar difficulties. Also, they primarily focus on networking activities, followed by human resources development and R&D. On the contrary, creative clusters are more oriented towards business training and market approaches, as these are not in a natural manner incorporated in their activities, as is the case of clusters in other industries. Also, they focus more attention on building the cluster’s brand name (with the exception of fashion design, which does not belong to the business service sector and where customers chose a product based on a designer), as creative clusters are constituted mainly of freelancers and micro companies. In addition, creative clusters are actively participating in shaping regional and/or local culture-oriented strategies. Nevertheless, their recommendations are often not included due to the parochial approach of public authorities.

Current awareness of the cluster concept and creative industries and their subsequent support under EU 2014–2020 programmes, however, encourages the development of clusters in these sectors. A special focus on creative sectors in regional strategies in Poland has increased possibilities to strengthen the development of this sector. On the contrary, Hungary, the Czech Republic, and Slovakia have not devoted enough attention to creative cluster development, as the main focus is put on industrial clusters.

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